

# **Hawai'i Statewide Syringe Exchange Program 2004 Evaluation Report**

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# **I. EXECUTIVE SUMMARY**

## **Introduction**

As of December 31, 2003, there were 902,223 reported AIDS cases in the United States, that met the criteria established by the Centers for Disease Control and Prevention (CDC). Since the recognition of AIDS, 58.1% of all cases or 524,060 deaths have been attributed to this disease. Approximately one third of all U.S. cases have been associated with injection drug use, either occurring among injecting drug users (IDUs), the sexual partners of IDUs, or the children of IDUs.

In Hawai'i, only 16.6% of AIDS cases are related to injecting drug use. This relatively low percentage is not due to a lack of injecting drug users in the state, but can be credited to the proactive efforts to implement HIV prevention programs for injecting drug users in Hawai'i. In particular, the Community Health Outreach Work (CHOW) Project and the Syringe Exchange Program (SEP) were begun early, when HIV infection rates were relatively low. Beginning effective prevention programs early is a critical aspect of preventing epidemics of HIV among injecting drug users.

## **History**

The State Department of Health began the CHOW Project in 1989 with federal support. This program involved training ex-drug users and other persons knowledgeable about the drug using population to serve as peer educators for persons at risk for HIV through injecting drug use.

In 1990, former Governor John Waihee signed into law Act 280, enabling the Department of Health (DOH) to establish a two-year pilot SEP. The first Hawai'i SEP site was the Rubber Room in downtown Honolulu, initiated by Aaron Peak of the LIFE Foundation.

Following the two-year pilot period, during which the SEP's safety and efficacy were tested, the State Legislature authorized HRS §325-113(c) also known as Act 152, enabling the DOH to operate the SEP as long as necessary to accomplish its intended purposes:

- (1) Preventing the transmission of HIV, hepatitis B, hepatitis C, and other blood-borne pathogens; and
- (2) Providing injecting drug users with referrals to appropriate health and social services.

In 1993, the legislature named the Community Health Outreach Work Project as the coordinating agency for the statewide SEP. By 1994, the CHOW Project had completed expansion of the SEP beyond O'ahu to the islands of Kaua'i, Maui, and Hawai'i (the Big Island). By the end of September 2003, there were six mobile van routes on four islands and one fixed exchange site near downtown Honolulu. The activities of the CHOW Project outreach workers have been fully integrated with those of the SEP. Workers attempt to establish contact and trust with the target population in an effort to encourage safer behaviors among IDUs. Currently, the Hawai'i statewide SEP is one of the larger programs in the United States. The SEP in Hawai'i was the first program in the United States that was both fully state-funded and also offered coordinated services statewide.

From October 2003 to September 2004, the SEP operated from the following sites:

<b><u>Island</u></b>	<b><u>Exchange Site</u></b>	<b><u>Area of Operation</u></b>
O'ahu	Kalihi-Palama Clinic (Fixed Site) CHOW O'ahu Mobile Exchange CHOW Downtown Mobile Exchange	350 Sumner Street, Honolulu Island-wide Downtown Honolulu
Hawai'i	CHOW East Hawai'i Mobile Exchange CHOW West Hawai'i Mobile Exchange	East Hawai'i (Hilo and environs) West Hawai'i (Kona and environs)
Maui	CHOW Maui Mobile Exchange	Island-wide
Kaua'i	CHOW Kaua'i Mobile Exchange	Island-wide

The SEP involves more than the exchange of sterile injection equipment for used—potentially HIV-contaminated injection equipment. While the exchange is occurring, SEP staff engage clients in conversation and counseling. All SEP staff have been trained on topics of special concern to the populations served by the CHOW Project, including safer injection techniques, safer sex, prevention of sexually transmitted diseases, and techniques for tailoring health education to clients. SEP counseling includes frank discussions regarding safer injection drug use and safer sex practices. Additionally SEP staff make referrals to other agencies and the DOH STD/AIDS Prevention Branch provides HIV testing for CHOW clients on SEP mobile van routes.

The SEP also serves as a conduit for IDUs to enter drug treatment programs. Staff provide information about various types of treatment programs and help IDUs enroll in the state's low-income insurance program, which may provide funding. The Hawai'i SEP is notable in having DOH funding to directly purchase methadone treatment services for SEP clients. SEP staff arrange the intake appointments and clients generally enter methadone treatment within one week of their request.

### **Methods and Data Sources**

The SEP collects data through a variety of sources and maintains four databases, the Dailylog Database, Survey Database, Treatment Referral Database, and Surveillance Database. It should be noted that a Syringe Exchange Program (SEP) year begins on October 1<sup>st</sup> and ends on September 30<sup>th</sup>. Thus, SEP2004 runs between October 1, 2003 and September 30, 2004.

SEP staff record a very modest amount of demographic information each time a client exchanges syringes. This information is then entered into the Dailylog Database. In order to protect client confidentiality, the dailylog information is based on visits to the SEP rather than individual clients. Thus, it is not possible to provide an exact count of the number of individual clients using the SEP. This database is the foundation for the data reported in the section on Syringe Exchange Program activity for the year.

In order to obtain more detailed information regarding clients using the SEP, research interviews are conducted with a randomly selected group of clients. Information collected is recorded in the Survey Database. These interviews include specific demographic, drug use, and HIV risk behavior data. The clients are paid a modest incentive for participating in these interviews. While names are not collected, code numbers are generated so that initial and follow-up interviews from the same client can be linked. The data on demographic characteristics, drug use, and HIV risk behaviors in this 2004 report are based on survey interviews conducted during the SEP year.

In order to obtain a better estimate of HIV prevalence among IDUs attending the SEP, a double blind HIV seroprevalence study was conducted in conjunction with the SEP2004 survey. The clients were asked to contribute an Orasure oral fluid sample, which was then tested for HIV. In order to ensure the highest possible rate of participation and to protect against loss of confidentiality, the staff did not obtain identifying information from the clients nor provide the test results back to the clients. HIV testing was discussed with all of the clients, and arrangements were made for testing for all clients who wished to learn their current HIV status.

The Treatment Referral Database is maintained by tracking the outcome of each referral to drug treatment from the CHOW Project. When SEP staff assist clients in accessing treatment, they record the client's name, method of contact, the type of drug treatment sought, medical insurance information, and any special circumstances as well as authorization for drug treatment centers to release confidential information to the SEP for reporting purposes. Duplication of clients can occur since reporting involves only referral. Outcomes of referrals made through CHOW are assessed on a quarterly basis and this information can be found in the Referrals to Drug Treatment section of this report.

Information gathered from the Department of Health STD/AIDS Prevention Branch, CDC HIV/AIDS Surveillance Reports, and Drug Addiction Services of Hawai'i, Inc. (DASH) form the Surveillance Database. These three sources provide HIV/AIDS testing and results statewide, AIDS cases nationwide and in Hawai'i, and the results of hepatitis B and limited hepatitis C testing done at DASH.

### **Client Characteristics**

Overall, the SEP clients are an "aging" population with long histories of injecting drug use. In 2004, the average age of the clients was 43.9 years. The 2004 clients report that they have been injecting drugs for an average of 20.5 years.

A little more than two-thirds of the clients (68.7%) were male. SEP staff report that many male clients obtain sterile needles and syringes for female IDUs who do not personally attend the exchange, so that the number of females who receive sterile injection equipment from the SEP may be substantially larger than the number of females who attend the SEP. The SEP clients come from diverse racial and ethnic backgrounds. A little over half (57.3%) of the SEP clients are Caucasian, with 14.7% Hispanic, 12% Asian (non-Filipino), 11.3% Hawaiian/part Hawaiian, 2.7% Filipino, and 1.3% African-American.

Housing is problematic for many SEP clients. Forty-two point seven percent (42.7%) live in houses or apartments that they own or rent, but 15.3% report living “with someone else,” 1.3% in shelters and 28.7% “on the streets.” Forty-five point three percent (45.3%) consider themselves to be homeless.

Heroin was the most commonly injected drug among SEP clients, with 80% of clients reporting heroin injection in the month prior to the survey interview. “Narcotics other than heroin” (primarily pharmaceutical analgesics) were injected by 27.3%, a marked decrease over the 44.7% reporting injection of these drugs in SEP2003 and the 37.3% who reported injecting these drugs in SEP2002. “Uppers” (predominantly amphetamines) were the third most commonly injected drug, with 20% of clients reporting amphetamine injection in the month prior to interview. Amphetamine injection appears to have stabilized at approximately 30% in SEP2001, SEP2002, SEP2003 and decreased to 20% this year. “Other drugs” was the fourth most commonly injected drug with 8% reporting injecting its use. In this category, clients reported injecting a mixture of heroin and “ice” or methamphetamine. Cocaine was reported as the fifth most commonly injected drug with 7.3% reporting its use.

The SEP clients injected drugs very frequently. They reported injecting on an average of 5.4 days per week, and an average of 2.5 injections on each day they injected. The SEP clients clearly would be at very high risk for HIV if they did not have good access to sterile injection equipment.

### **Amphetamine Injection**

Injecting amphetamine is a serious problem in Hawai'i. The percentage of SEP participants who reported injecting amphetamine (this includes persons who injected amphetamines alone as well as those who injected it in combination with heroin) has increased dramatically over the last several years, from 6% in SEP1999 to 39% in SEP2002, but with a moderate decrease to 33% in SEP2003. In SEP2004, the percentage of SEP participants injecting amphetamines decreased moderately to 27.3%. This moderate decline in amphetamine injection is clearly a hopeful sign, but continued monitoring of amphetamine use is required, as the drug can lead to both aggression and unsafe sexual behavior.

### **SEP Operations**

In SEP2004, there were a total of 7,724 client visits to the SEP. This represents the fourth year of modest reductions in the total number of client visits from the high of 11,855 in SEP2000. On O'ahu, the gradual dispersal of the population served in the Chinatown area contributed to the decrease in visits on the island. SEP staff report that clients are exchanging through gatekeepers or exchanging larger numbers of syringes per visit. The yearly numbers of visits before 1997 were falsely elevated due to a 25 syringe per visit cap that was removed that year.

The total number of syringes exchanged by the SEP increased each year beginning in 1996 to 2003. This SEP year's number of 424,116 syringes exchanged decreased from last year's record high of 468,379 syringes exchanged in SEP2003. This decrease of 44,263 syringes translates to a 9.5% decrease in syringes from SEP2003. This moderate decrease may represent reaching a plateau in the numbers of syringes that can be exchanged within the present resources

available to the program. It is also possible that the geographic dispersal of IDUs from the Chinatown area is making it more difficult for IDUs to participate in syringe exchange. The present moderate decrease should not be seen as a cause for alarm, but the numbers of syringes exchanged need to be monitored closely for the next several years.

### **Treatment Referrals**

The SEP includes an active system for referring clients to drug abuse treatment, particularly to the Comprehensive Health & Attitude Management Program, Inc. (CHAMP) and the Drug Addiction Services of Hawai'i, Inc. (DASH). In SEP2004, there were 125 admissions into treatment from SEP referrals. The number of treatment admissions from SEP referrals has remained essentially stable since 1998.

### **Risk Behaviors of SEP Clients**

In the survey, only 10.7% of the respondents reported that they had injected with a needle and syringe that had been used by someone else ("receptive sharing of needles and syringes") in the one month prior to the interview. This represents a slight increase from last year in which 7.3% of survey respondents reported "receptive sharing" of needles and syringes. Among the modest percentage (10.7%) of survey respondents who did report "receptive sharing" of needles and syringes, 62.5% reported that they "always" cleaned the used needles and syringes. Whether such cleaning actually prevents transmission of HIV among injecting drug users has not yet been determined from epidemiologic studies. There are many variables that may influence any protective effect of cleaning; including whether full strength bleach is used as a cleaning agent and whether there is a 30-second contact time of the bleach in the syringe. It is clear however, that cleaning cannot increase the transmission of HIV. That a majority of those who report sharing needles and syringes report cleaning them is an indication of the further efforts that most SEP participants will make to reduce HIV transmission.

We also asked about "passing on" used needles and syringes to other drug injectors. This "distributive sharing" places the other drug injectors at risk for any blood-borne pathogens that may be carried by the first injector. Thirty-one percent (31%) of the survey respondents reported that they had passed on used needles and syringes to other drug injectors in the one month prior to the interview. Given that relatively few of the SEP participants are infected with HIV, this moderate to low rate of "distributive sharing" is not likely to lead to much transmission of HIV. However, this "distributive sharing" is likely to be a problem for transmission of hepatitis C virus among SEP participants. Current available data suggest that a relatively high percentage of participants are infected with and capable of transmitting hepatitis C.

We also asked questions about the sharing of "cookers" (used to heat and dissolve the drug before injecting) and "cottons" (used to filter the drug solution before injecting). Twenty-four percent (24%) of the survey respondents reported using cookers that other drug injectors had already used ("sharing cookers") in the one month prior to the interview. Twenty-three percent (23%) of the respondents reported sharing cottons in the one month prior to the interview. Twenty-seven percent (27%) reported "distributive sharing" of cookers, and 31% reported "distributive sharing" of cottons. The sharing of cookers and cottons is thus higher than the direct sharing of needles and syringes. Sharing of cookers and cottons is probably not an

efficient method of transmitting HIV, but recent studies suggest that sharing of cookers and cottons may be important in transmitting hepatitis C (Hagan H. et al., 1999).

The survey respondents reported moderate levels of sexual risk behaviors. Thirty percent (30%) reported having a sexual relationship with a “primary” partner in the month prior to the interview. Of these respondents, 76% reported not always using condoms with their primary sexual partners.

Nine percent (9%) of the survey respondents reported that they had a sexual relationship with “casual” partners in the month prior to the interview. Seventy-one percent (71%) of these reported that they do not always use condoms with their casual partners.

Given the low rate of HIV infection among SEP participants, these rates of unsafe sexual behavior are not very likely to transmit HIV, but may be associated with other sexually transmitted infections.

### **HIV Infection**

In the double-blinded HIV testing conducted in SEP2004, 3 of 126 individual samples were positive, for a seroprevalence of 2.4%. Two of the three seropositives reported that they had previously tested positive for HIV, and that they had been seropositive for relatively long periods of time. Thus, there was only one of 126 persons in the testing study who appears to have been recently infected with HIV. The data from this HIV testing study is fully consistent with all other IDU HIV testing data in the state. The HIV testing study provides the first direct evidence that both prevalence and incidence of HIV infection are quite low among IDUs participating in the SEP.

### **Benefit/Cost Analysis**

While there are many difficulties in conducting a benefit/cost analysis of any HIV prevention program, it is clear that it is very expensive to treat HIV infection, and the cost has clearly increased with the advent of highly active anti-retroviral treatment (HAART). The combined SEP/CHOW Project would provide a cost savings to the state of Hawai'i if it prevented as few as 4 new HIV infections per year. Given the risk behavior and HIV infection data among IDUs, one may be quite certain that the combined program is cost effective.

### **CONCLUSIONS**

1. HIV/AIDS among IDUs is a major public health problem in many countries throughout the world. It is a particular problem in the United States, where it is estimated that one third of all new HIV infections are occurring among IDUs.
2. Hawai'i acted early to establish HIV prevention programs for IDUs, including the Community Health Outreach Work to Prevent AIDS Project (CHOW) and a legal Syringe Exchange Program (SEP). The SEP has been expanded into a statewide system of programs that are fully integrated with the CHOW Project.
3. While the present data systems do not permit an exact count of the numbers of IDUs who use the Hawai'i SEP, the program is one of the larger programs in the United States based

on the annual numbers of syringes exchanged. Syringe exchange increased up to 2003 and then declined modestly in 2004. It is possible that the annual number of syringes exchanged is now stabilizing. This should be monitored in the future.

4. Based on their drug injection frequencies, participants in the SEP would be at very high risk for HIV infection if they did not have a legal source of sterile injection equipment and other needed educational and support services.
5. The Hawai'i SEP provides multiple health and social services to its participants. The strong linkage of the Hawai'i program to drug abuse treatment is notable among SEPs in the United States.
6. Participants in the SEP report low but not negligible rates of injection risk behavior.
7. The HIV seroprevalence study found both a low prevalence (2.4%) and a low incidence (likely to be less than 1% per year) among IDUs participating in the SEP. Given that the program is relatively large, it probably reaches a high percentage of IDUs in the state, and it is unlikely that prevalence or incidence are very different among IDUs not participating in the SEP.
8. The data on hepatitis B and hepatitis C infections among injecting drug users are far from complete. The limited data available however, do suggest that hepatitis C is likely to be a very serious health problem among drug injectors in the state.
9. Given the considerable costs of medical treatment for HIV infection and the consistent evidence for low rates of HIV infection among IDUs in Hawai'i, there is great certainty that the investment in the integrated SEP/CHOW Project produces a substantial cost savings for the State of Hawai'i.
10. Patterns in drugs injected are almost always changing, and such changes can occur rapidly. Amphetamine injection decreased in SEP2004, and it will be important to monitor whether amphetamine injection continues to decline in the future.
11. Having a large SEP fixed site on O'ahu in addition to the mobile exchange routes could increase access to services including HIV counseling and testing, referrals to drug treatment and behavioral risk reduction interventions on a group level.
12. The continuing success in limiting HIV transmission among injecting drug users in Hawai'i is notable given indications of a resurgence of HIV infection in other high-risk populations in other parts of the United States.



## RECOMMENDATIONS

1. The Hawai'i SEP has become an effective statewide program that has experienced substantial growth over the last several years. The highest priority must be given to maintaining the quantity and quality of SEP services.
2. There are many advantages to providing services from a fixed site, and the SEP should explore the possibility of obtaining a modest-cost fixed site that would be convenient for SEP participants while also maintaining the services of the mobile exchange.
3. Increase efforts for presentation of SEP data at professional conferences and in peer-reviewed journals to allow the Hawai'i SEP to contribute more significantly to the field of HIV prevention.
4. It is clear that hepatitis among IDUs in Hawai'i need to be addressed on a long-term basis. This could include increased vaccination for hepatitis A and B and increased behavioral risk reduction programming for hepatitis C. The SEP should continue the distribution of clean cookers, cottons, and rinse water to reduce potential HBV and HCV transmission. The CHOW Project/SEP can refer IDUs to the Hawai'i Department of Health for hepatitis A and B vaccinations and testing for the antibodies to hepatitis C. The CHOW Project has collaborated with the Department of Health on several health events that have included free vaccinations and HCV testing for IDUs and will continue to help coordinate and these events. The CHOW Project/SEP should continue its involvement with the process and implementation of the statewide Hepatitis C Strategic Plan.
5. Explore the possibilities of providing broader services to IDUs either directly or through organizational linkages with other programs serving this population. The need for mental health services in particular should be addressed.
6. The collaborative effort between DOH and the CHOW Project is impressive in bringing HIV counseling and testing (C&T) services directly to IDU clients. This program should be maintained and strengthened by regular scheduling of HIV C&T on all SEP mobile routes.
7. Methadone treatment services should be continued on O'ahu, Maui, and in East Hawai'i, and should be expanded to West Hawai'i and Kaua'i.
8. Every effort should be made to increase the availability of sterile injection equipment for IDUs at the time of drug injection. The SEP should continue to monitor pharmacy purchased syringes exchanged with the SEP including data regarding any difficulty in obtaining syringes by SEP clients.
9. Continue community education efforts to counter negative false beliefs about syringe exchange, increase community understanding of the public health issues involved, and increase community support for syringe exchange.

10. Even while operating in a changing environment and with fixed financial resources, the Syringe Exchange Program has grown considerably since 2000 in terms of the numbers of syringes exchanged. It is possible that the program has reached a plateau in terms of the services and syringes exchanged within its current resources.
11. Given the recent increase in sexually transmitted diseases (STDs) in Hawai'i, it is important that injecting drug users have ready access to screening and treatment for STDs. Therefore, STD services should be made available to IDU clients in an accessible manner. SEP/CHOW staff should provide continual STD education to program participants, including information on accessing screening and treatment.
12. Transmission of HIV occurs through HIV seropositives either passing on used injection equipment or engaging in unprotected sexual intercourse. In conjunction with Prevention for Positives, the SEP/CHOW project should work to ensure that those IDUs who test positive for HIV have sufficient access to a full range of prevention services, including sterile syringes and condoms to avoid transmission behaviors.
13. The HIV seroprevalence study conducted this year provides the first estimate of HIV infection among the SEP clients. It would be desirable to repeat this study in the coming year.